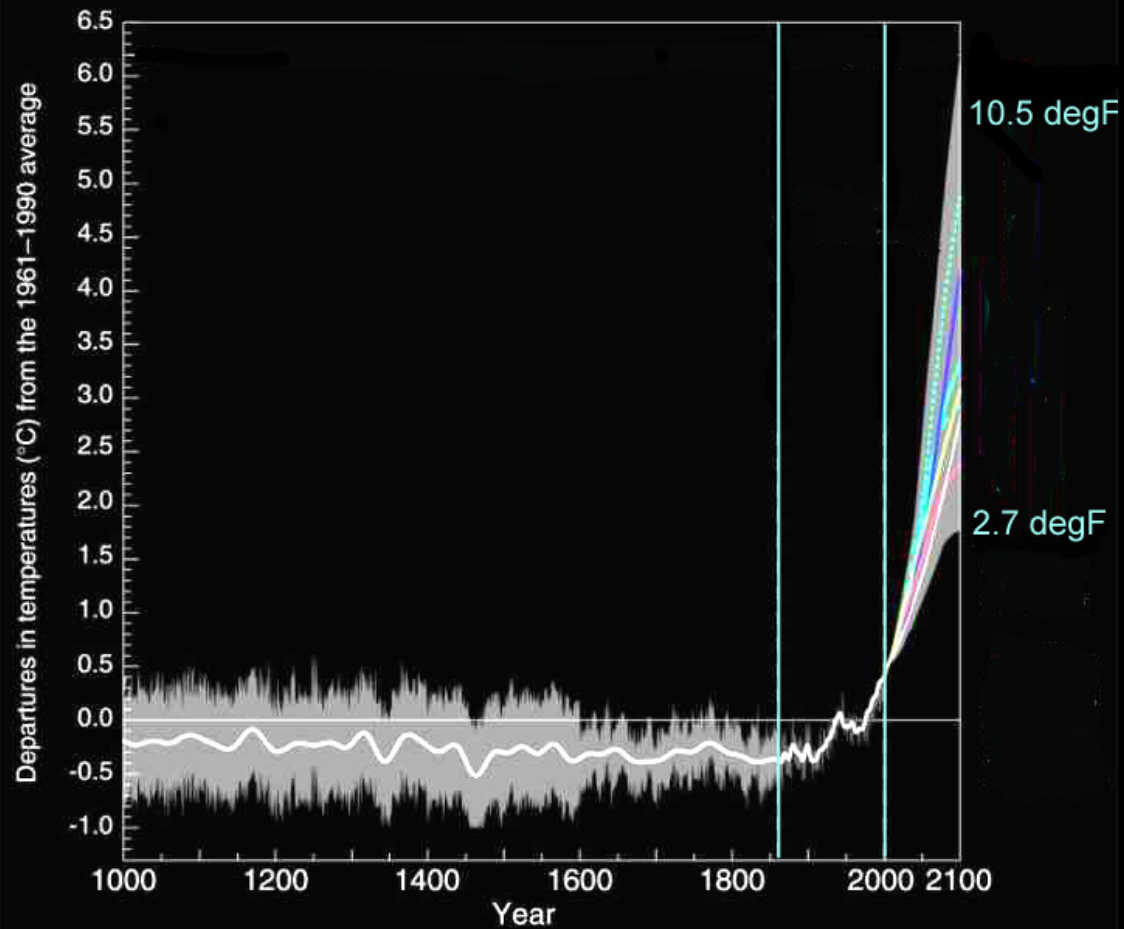
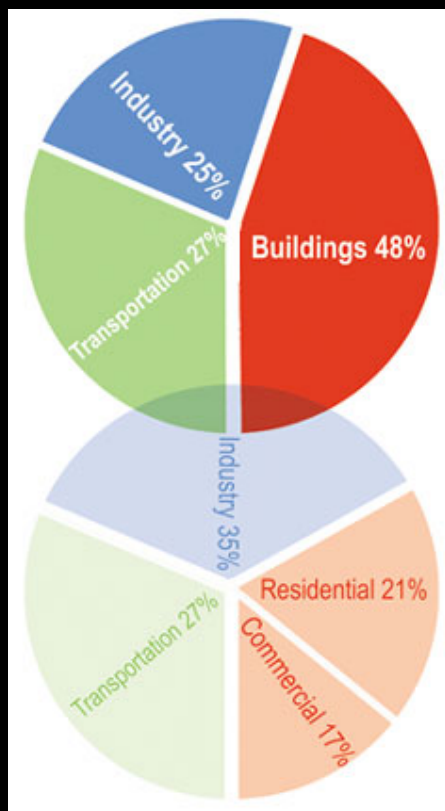




## Earth's Surface Temperature



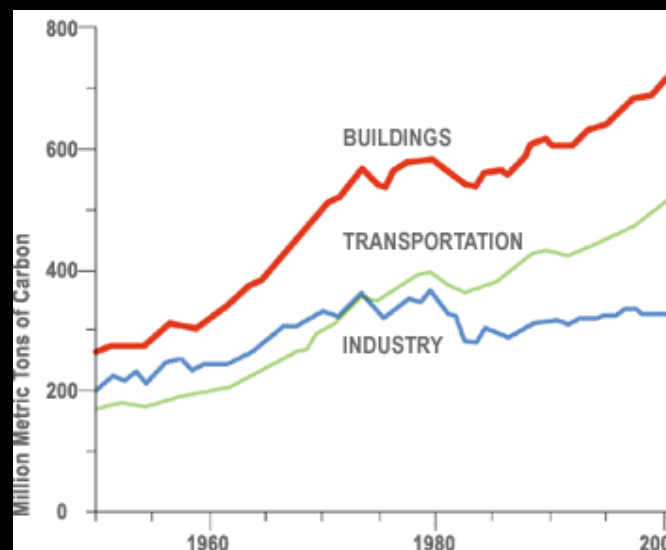
Source: UN Intergovernmental Panel on Climate Change  
(IPCC)



## ENERGY CONSUMPTION BY SECTOR

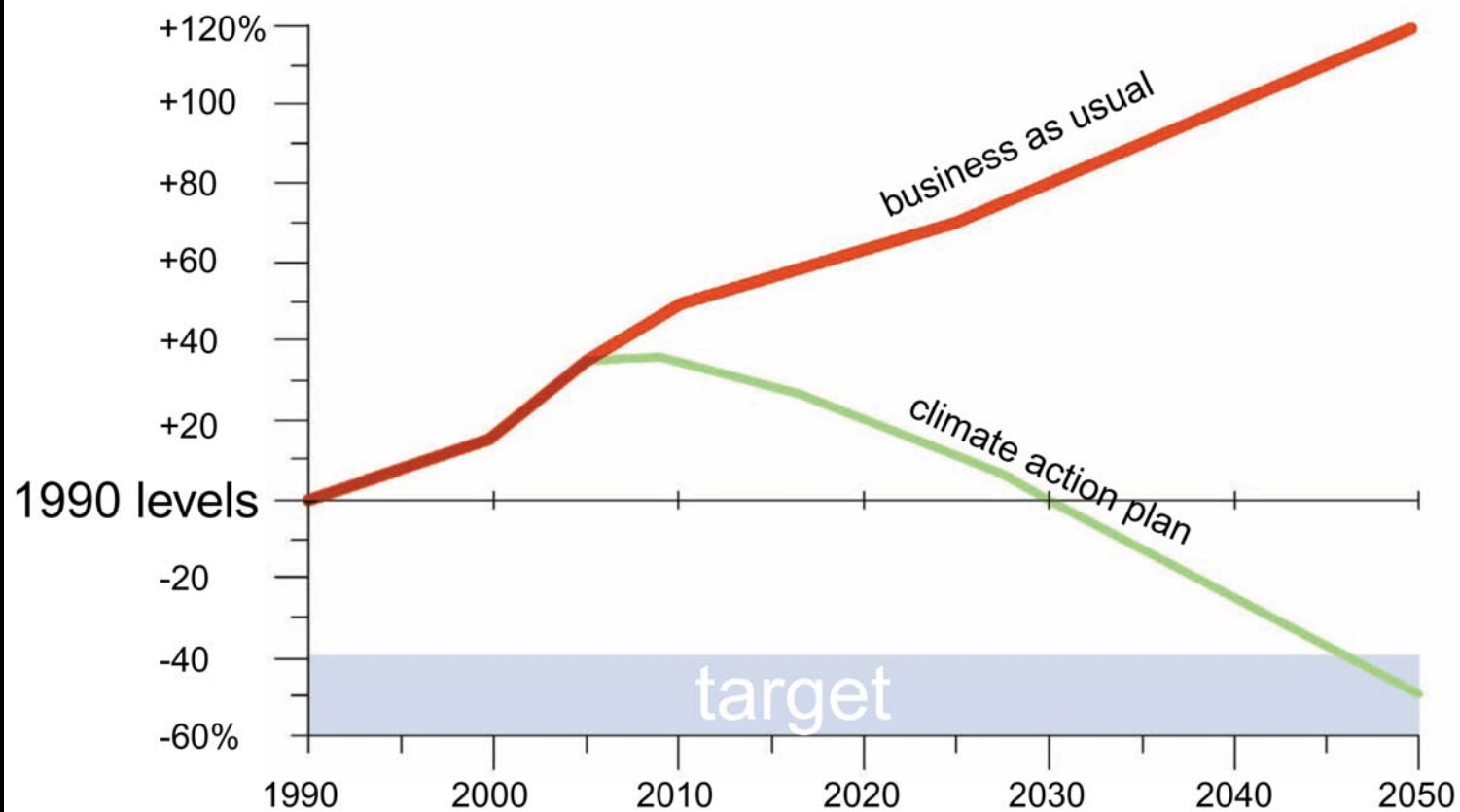
Source: U.S. Energy Information Administration

Combining the annual energy required to operate residential, commercial, and industrial buildings along with the embodied energy of industry-produced building materials like carpet, tile, glass, and concrete exposes buildings as the largest energy consuming and greenhouse gas emitting sector.



## U.S. CO<sub>2</sub> EMISSIONS BY SECTOR

Source: U.S. Energy Information Administration statistics



## U.S. Building Sector CO2 Emissions

Source: Mazria Inc. 2005 (Assumes a 15% embodied energy reduction in the construction of new buildings)

# American Institute of Architects (AIA) carbon emission reduction targets

By 2010: New Buildings - 50%

2010 - 60%

2015 - 70%

2020 - 80%

2025 - 90%

2030 - net zero carbon emissions

# AIA/COTE Programs - Promoting Sustainability

The [Committee on the Environment](#) (COTE) works to advance, disseminate, and advocate to the profession, the building industry, the academy, and the public design practices that integrate built and natural systems and enhance both the design quality and environmental performance of the built environment.

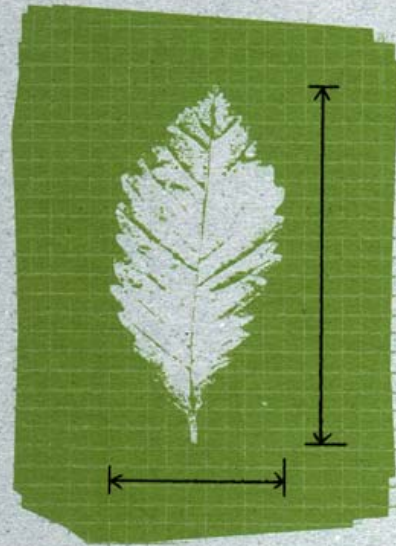
- > Best Practices
- > Collaboration
- > Communication
- > Education & Advocacy





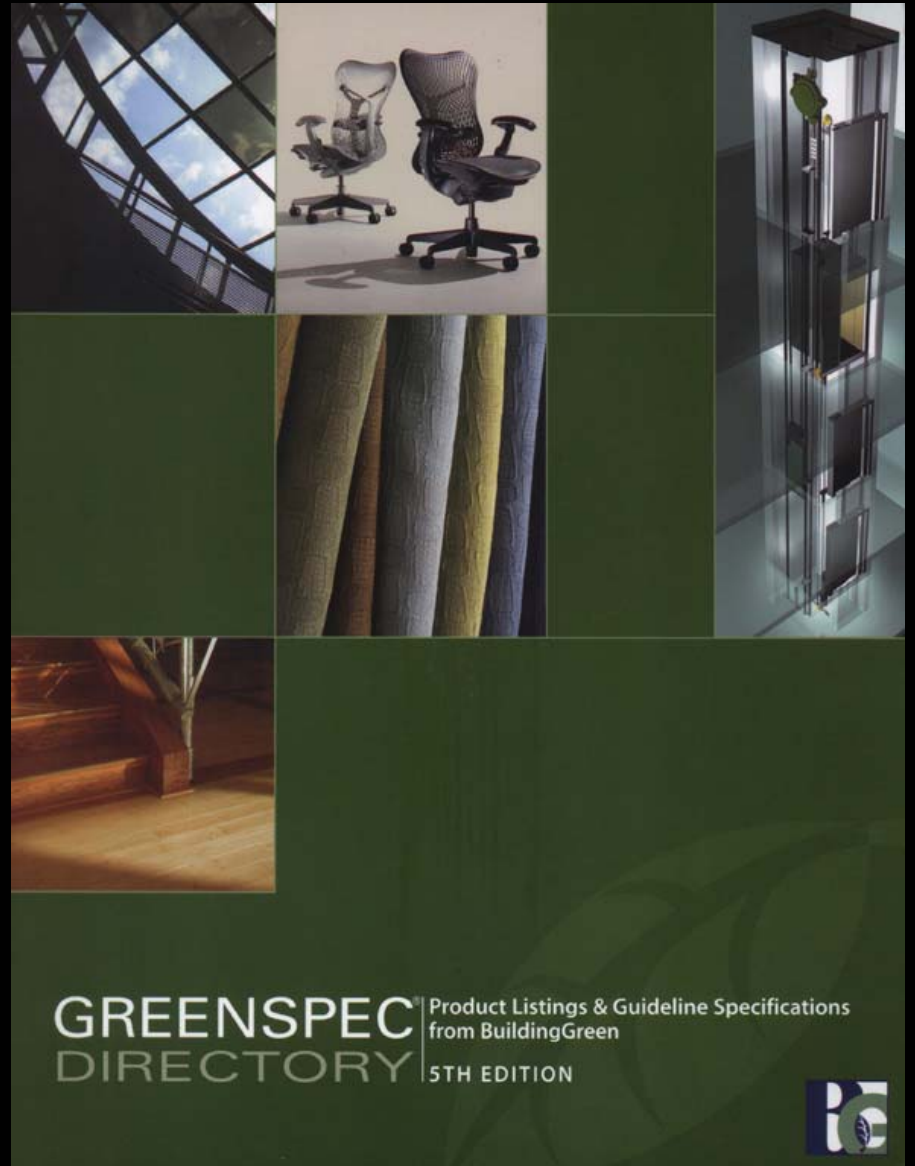


# reSourceful Specifications



**Guideline Specifications for  
Environmentally Considered  
Building Materials and  
Construction Methods**

**LARRY STRAIN, AIA**  
| Siegel & Strain Architects

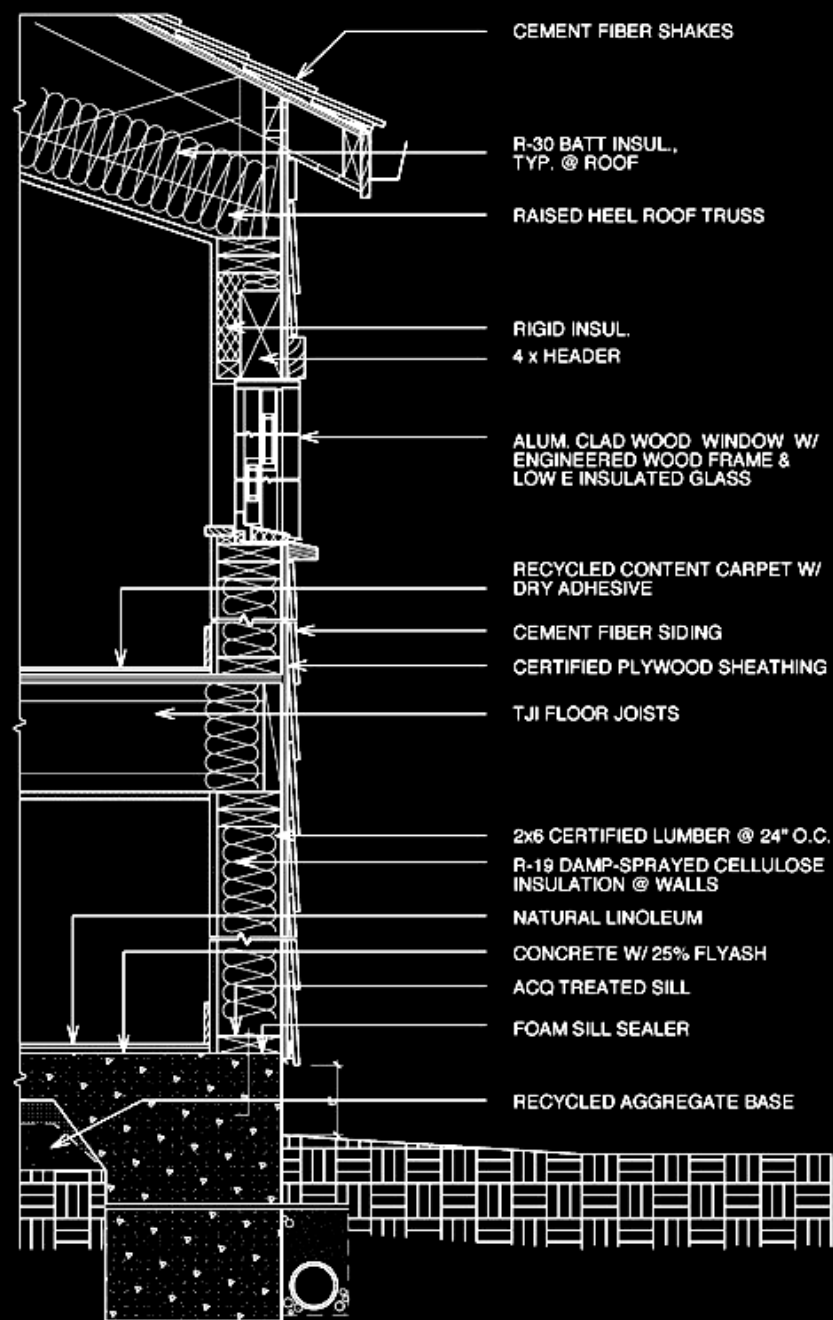


**GREENSPEC** | Product Listings & Guideline Specifications  
| from BuildingGreen  
**DIRECTORY** | 5TH EDITION



**SIEGEL & STRAIN** Architects





## Life Cycle Analysis Wall Assemblies - Embodied Energy - Mega Joules

Fuel	Fuel Production		Fuel Use		Transport		Feedstock		Total - MJ	
	Standard	ERB	Standard	ERB	Standard	ERB	Standard	ERB	Standard	ERB
Electricity	42,000	12,100	21,300	5,500	400	300	0	0	63,700	17,900
Oil	7,300	4,000	20,300	5,000	17,700	11,900	7,900	17,000	53,300	38,000
Other	16,400	13,500	108,600	65,100	600	7,000	235,000	163,000	360,700	248,600
Total MJ	65,700	29,600	150,200	75,600	18,700	19,200	242,900	180,000	477,600	304,500
Savings	55%	36,100	50%	74,600	-2%	-500	36%	62,900	37%	173,200



















1035 ft  
Pointer 37°52'59.70" N 122°11'09.62" W elev 538 ft

© 2006 Europa Technologies

Streaming 100%

Eye alt 4464 ft



